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Benjamin

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(54) **SHAPED PIEZOELECTRIC COMPOSITE ARRAY**

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(57) **ABSTRACT**

An underwater acoustic transducer includes a set of formed substrates of piezoelectric polymer composite, the formed substrates having at least a first and second surface. Conductive electrodes are deposited on the first and second sides of the formed substrates. One surface of the substrate is bonded to an acoustically absorptive backing material. Either surface can be made to conform to a singly or doubly curved geometry. Electrodes deposited on these substrates may be continuous to form a single transducer element, or segmented to form sub-arrays of transducer elements.

7 Claims, 2 Drawing Sheets